ENERGY TRANSFER

NOV 1 2019

October 31, 2019

Lori McNabb
Pennsylvania Department of Environmental Protection
Northwest Regional Office
230 Chestnut Street
Meadville, PA 16335
Tracking Number 1Z865F5F0193633466

Re: NSPS OOOOa Annual Compliance Report
August 2, 2018 through August 2, 2019
ETC Northeast Pipeline, LLC – Galaxy Compressor Station

Dear Ms. McNabb:

ETC Northeast Pipeline, LLC is submitting this letter to meet the annual reporting requirement of New Source Performance Standard 40 CFR 60, Subpart OOOOa (NSPS OOOOa) for the Galaxy Compressor Station (Galaxy Station). The Galaxy Station is currently authorized via Permit No. GP5-10-400B and is located in Parker Township, Butler County, Pennsylvania.[1]

This annual report covers the compliance period from August 2, 2018 through August 2, 2019. In accordance with §60.5420a(b), the annual report is due 90 days after the end of the compliance period (i.e., October 31, 2019).

The information required by §40 CFR 60.5420a(b)(1) and §60.5420a(b)(6) are provided below.

I. GENERAL INFORMATION (§60.5420a(b)(1))

(1) The company name and address of the affected facility.

Mailing Address: 6051 Wallace Rd Ext., Suite 300, Wexford, PA 15090
Facility Name: Galaxy Compressor Station
Facility Address: 253 West Eldorado Road, Parker Township, PA 16094
Facility Location: Parker Township, Butler County, PA
Latitude: 41.093312°
Longitude: -79.759840°

From Barkeyville proceed east on I-80 for 5.6 miles. Take exit 35 for PA-308 toward Clintonville and turn right to proceed south for 3.6 miles. Turn left on PA-58 East and proceed 4.6 miles. Turn right on PA-38 South/S. Washington St and continue to follow PA-38 South for 4.1 miles. Turn left onto West Eldorado Rd and follow for approximately 2.5 miles. The site will be on the left.

[1] The facility permit also authorizes the installation/operation of the following sources that are potentially subject to NSPS OOOO/OOOOa; however, the listed equipment had not started up as of the end of the reporting period: reciprocating compressors and natural gas processing equipment.

(2) An identification of each affected facility being included in the annual report.

This report addresses the affected facilities located at the Galaxy Compressor Station in Parker Township, Butler County, Pennsylvania. Specifically, one (1) storage vessel affected facility (Condensate TANK-2) subject to NSPS OOOOa.

Additionally, this report addresses three (3) reciprocating compressor affected facilities that commenced operation, briefly, during the reporting period. See Section V below.

(3) Beginning and ending dates of the reporting period.

This report covers the compliance period from August 2, 2018 through August 2, 2019.

(4) Certification by a responsible official of truth, accuracy, and completeness.

Certification statement included at closing of this letter.

II. STORAGE VESSELS (§60.5420a(b)(6))

(1) An identification, including the location, of each storage vessel affected facility for which construction, modification or reconstruction commenced during the reporting period. The location of the storage vessel shall be in latitude and longitude coordinates in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983.

No new storage tank affected facilities were constructed during the reporting period.

(2) Documentation of the VOC emission rate determination according to §60.5365a(e) for each storage vessel that became an affected facility during the reporting period or is returned to service during the reporting period.

No new storage tank affected facilities were constructed during the reporting period.

(3) Records of deviations specified in paragraph (c)(5)(iii) of this section that occurred during the reporting period.

Deviation #1 – Documentation of Closed Vent System Certification
ETC Northeast Pipeline, LLC notes that the company's procedure for engineering design/review was completed for the station in the planning phase. Although the formal OOOOa CVS assessment/certification was not documented, the design of the closed vent system was evaluated by a professional engineer. The CVS assessment/certification is underway and will be provided as a follow-up to this report when it is complete.

(4) A statement that you have met the requirements specified in §60.5410a(h)(2) and (3).

For the period of August 2, 2018 to February 22, 2019: With the exception(s) noted in item 3 above, ETC Northeast Pipeline, LLC met the requirements specified in 40 CFR §60.5410a(h)(2) and (h)(3) including:

- 40 CFR §60.5410a(h)(2) Reduce VOC emissions in accordance with §60.5395a(a).
  - VOC emissions were reduced by 95% during the reporting period.

- 40 CFR §60.5410a(h)(3) If you use a control device to reduce emissions equip the storage vessel with a:
  - Cover that meets the requirements of §60.5411a(b) [see deviation noted above];
  - Closed vent system that meets the requirements of §60.5411a(c) and (d) [see deviation noted above]; and
  - Control device that meets the conditions specified in §60.5412a(d).

For the period of February 22, 2019 to August 2, 2019: Not applicable.

(5) You must identify each storage vessel affected facility that is removed from service during the reporting period as specified in §60.5395a(c)(1)(ii), including the date the storage vessel affected facility was removed from service.

The Galaxy Station TANK-2 was "removed from service" on February 22, 2019. The tank stored condensate from August 2, 2018 to February 22, 2019. In accordance with the rule, the tank was completely emptied and degassed, such that the storage vessel no longer contained the condensate stream.

Removed from service means that a storage vessel affected facility has been physically isolated and disconnected from the process for a purpose other than maintenance in accordance with §60.5395a(c)(1).

(6) You must identify each storage vessel affected facility returned to service during the reporting period as specified in §60.5395a(c)(3), including the date the storage vessel affected facility was returned to service.

In accordance with 40 CFR 60.5395a(c)(3), ETC Northeast Pipeline determined TANK-2's affected facility status when the tank was returned to service as provided in §60.5365a(e), and has determined that the storage vessel in produced water service has emissions of less than 6.0 tpy VOC. Therefore, TANK-2 is no longer a NSPS OOOO/OOOOa affected facility.

Returned to service means that a storage vessel affected facility that was removed from service has been:
(1) Reconnected to the original source of liquids or has been used to replace any storage vessel affected facility; or
(2) Installed in any location covered by this subpart and introduced with crude oil, condensate, intermediate hydrocarbon liquids or produced water.

(7) If complying with §60.5395a(a)(2) with a control device tested under §60.5413a(d) which meets the criteria in §60.5413a(d)(11) and §60.5413a(e), records specified in paragraphs (c)(5)(vi)(A) through (F) of this section for each storage vessel constructed, modified, reconstructed or returned to service during the reporting period

Not Applicable - Galaxy Station Condensate TANK-2 does not utilize a control device tested under §60.5413a(d).

III. ELECTRONIC REPORTING (§60.5420a(b)(11))

(1) You must submit reports to the EPA via the CEDRI. You must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI Web site . If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §60.4. Once the form has been available in CEDRI for at least 90 calendar days, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

The reporting form made available by EPA on the CEDRI page is provided in draft. As such, the reporting form was not utilized for this report. Further, CEDRI is not yet capable of electronic submittal of the report form.

IV. QUALIFIED PROFESSIONAL ENGINEER CERTIFICATION (§60.5420a(b)(12))

(1) You must submit the certification signed by the qualified professional engineer according to §60.5411a(d) for each closed vent system routing to a control device or process.

See the deviation noted in II.(3) above. The CVS assessment/certification is underway and will be provided as a follow-up to this report when it is complete.

V. RECIPROCATING COMPRESSORS (§60.5420a(b)(4))

During the reporting period, three (3) reciprocating compressors started up at the Galaxy Compressor Station. However, the units ran briefly. The table below summarizes the unit operation during the reporting period.

Unit ID	Operations Tracking 60.5420a(b)(4)(i)				Deviations to Report?
	How are you tracking Operations?	Actual Time Reported	What is the start date?	What determined start date? *	
201	Hours	76	9/9/2018	Startup	No Deviations
202	Hours	51	9/9/2018	Startup	No Deviations
203	Hours	23	9/9/2018	Startup	No Deviations

*Startup, Sept. 18, 2015, or rod packing replacement whichever is later.

Should you have any questions or require additional information, please contact Doug Frisco at (570) 505-3700 or Patty Centofanti of Trinity Consultants at (412) 538-8038.

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This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Sincerely,

Stephen Schuman

Stephen D. Schuman
VP Operations – East Division

ATTACHMENTS

cc: US EPA Region III, Air Protection Division
Office of Air Enforcement & Compliance - NSPS
1650 Arch Street (3AP00), Philadelphia, PA 19103
Tracking Number 1Z865F5F0190354120
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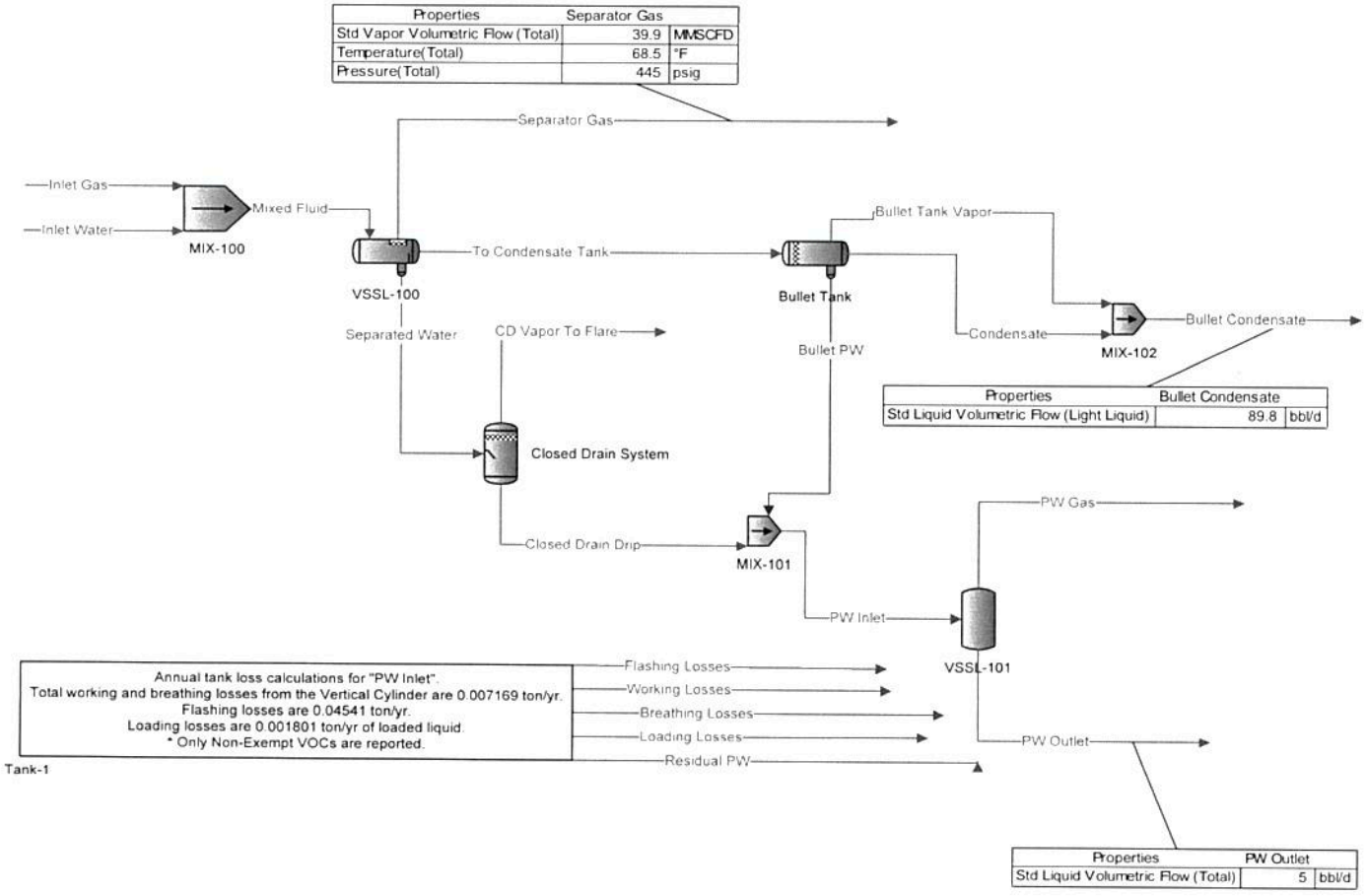
Properties
Separator Gas
Std Vapor Volumetric Flow (Total)
39.9
MMSCFD
Temperature(Total)
68.5
°F
Pressure(Total)
445
psig
Separator Gas
Inlet Gas
Inlet Water
MIX-100
Mixed Fluid
VSSL-100
To Condensate Tank
Bullet Tank
Bullet Tank Vapor
Condensate
MIX-102
Bullet Condensate
Separated Water
CD Vapor To Flare
Bullet PW
Properties
Bullet Condensate
Std Liquid Volumetric Flow (Light Liquid)
89.8
bbl/d
Closed Drain System
Closed Drain Drip
MIX-101
PW Gas
PW Inlet
VSSL-101
Annual tank loss calculations for "PW Inlet".
Total working and breathing losses from the Vertical Cylinder are 0.007169 ton/yr.
Flashing losses are 0.04541 ton/yr.
Loading losses are 0.001801 ton/yr of loaded liquid.
* Only Non-Exempt VOCs are reported.
Tank-1
Flashing Losses
Working Losses
Breathing Losses
Loading Losses
Residual PW
PW Outlet
Properties
PW Outlet
Std Liquid Volumetric Flow (Total)
5
bbl/d

Process Streams		Breathing Losses	Bullet Condensate	Flashing Losses	Inlet Gas	Loading Losses	PW Gas	PW Inlet	PW Outlet	Working Losses
Composition	Status:	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved
Phase: Total	rom Bloc	--	MIX-102	--	--	--	VSSL-101	MIX-101	VSSL-101	--
	To Block:	--	--	--	MIX-100	--	--	VSSL-101	--	--
Mole Fraction		%	%	%	%	%	%	%	%	%
Nitrogen		1.14E-03	4.19E-02	2.82E-02	7.18E-01	1.14E-03	1.80E-02	2.78E-06	4.17E-07	1.14E-03
Oxygen		8.17E-04	6.03E-03	6.64E-03	5.51E-02	8.17E-04	4.58E-03	8.17E-07	2.14E-07	8.17E-04
Carbon Dioxide		1.03E-01	1.32E-02	6.25E-02	3.25E-02	1.03E-01	6.15E-02	4.82E-05	4.02E-05	1.03E-01
Methane		2.30E+00	1.30E+01	1.51E+01	7.45E+01	2.30E+00	1.08E+01	2.11E-03	6.93E-04	2.30E+00
Ethane		1.08E+01	1.34E+01	2.18E+01	1.56E+01	1.08E+01	1.98E+01	8.48E-03	5.88E-03	1.08E+01
Propane		7.91E+00	1.42E+01	2.31E+01	5.66E+00	7.91E+00	2.37E+01	2.53E-02	2.22E-02	7.91E+00
Isobutane		1.66E+00	3.67E+00	5.16E+00	6.55E-01	1.66E+00	5.64E+00	1.45E-02	1.38E-02	1.66E+00
n-Butane		5.54E+00	1.32E+01	1.66E+01	1.67E+00	5.54E+00	1.85E+01	7.14E-02	6.90E-02	5.54E+00
Isopentane		1.36E+00	5.40E+00	4.68E+00	3.35E-01	1.36E+00	5.38E+00	4.90E-02	4.83E-02	1.36E+00
n-Pentane		1.96E+00	9.37E+00	6.80E+00	4.59E-01	1.96E+00	7.92E+00	9.75E-02	9.65E-02	1.96E+00
n-Hexane		1.28E+00	1.58E+01	4.29E+00	2.91E-01	1.28E+00	5.22E+00	2.36E-01	2.35E-01	1.28E+00
Heptane		1.39E-01	5.59E+00	4.98E-01	5.23E-02	1.39E-01	6.25E-01	9.37E-02	9.36E-02	1.39E-01
Octane		2.49E-02	3.43E+00	9.04E-02	1.98E-02	2.49E-02	1.17E-01	5.98E-02	5.98E-02	2.49E-02
Nonane		3.77E-04	1.83E-01	1.38E-03	8.00E-04	3.77E-04	1.86E-03	3.22E-03	3.22E-03	3.77E-04
Decane		2.50E-04	4.26E-01	1.01E-03	1.70E-03	2.50E-04	1.40E-03	7.54E-03	7.55E-03	2.50E-04
Undecane		2.38E-04	1.47E+00	9.70E-04	5.60E-03	2.38E-04	1.40E-03	2.61E-02	2.61E-02	2.38E-04
Benzene		4.90E-03	9.58E-02	2.68E-02	1.90E-03	4.90E-03	3.23E-02	1.50E-03	1.50E-03	4.90E-03
Toluene		4.19E-03	2.74E-01	2.41E-02	2.50E-03	4.19E-03	3.01E-02	4.65E-03	4.65E-03	4.19E-03
Ethylbenzene		1.75E-04	3.49E-02	9.52E-04	2.00E-04	1.75E-04	1.23E-03	6.10E-04	6.10E-04	1.75E-04
m-Xylene		1.51E-03	2.52E-01	6.31E-03	1.40E-03	1.51E-03	8.16E-03	4.39E-03	4.39E-03	1.51E-03
o-Xylene		1.23E-04	3.75E-02	7.98E-04	2.00E-04	1.23E-04	1.04E-03	6.58E-04	6.58E-04	1.23E-04
Water		6.69E+01	3.12E-02	1.62E+00	0.00E+00	6.69E+01	2.11E+00	9.93E+01	9.93E+01	6.69E+01
Molar Flow		lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h	lbmol/h
Nitrogen		1.36E-09	6.79E-03	8.25E-08	3.15E+01	4.12E-10	9.17E-08	1.08E-07	1.62E-08	2.81E-10
Oxygen		9.76E-10	9.75E-04	1.94E-08	2.42E+00	2.96E-10	2.34E-08	3.17E-08	8.32E-09	2.02E-10
Carbon Dioxide		1.23E-07	2.13E-03	1.83E-07	1.43E+00	3.73E-08	3.14E-07	1.87E-06	1.56E-06	2.55E-08
Methane		2.75E-06	2.10E+00	4.41E-05	3.27E+03	8.34E-07	5.52E-05	8.21E-05	2.69E-05	5.69E-07
Ethane		1.29E-05	2.17E+00	6.38E-05	6.83E+02	3.92E-06	1.01E-04	3.29E-04	2.28E-04	2.68E-06
Propane		9.45E-06	2.31E+00	6.75E-05	2.49E+02	2.87E-06	1.21E-04	9.82E-04	8.61E-04	1.96E-06
Isobutane		1.98E-06	5.94E-01	1.51E-05	2.88E+01	6.01E-07	2.88E-05	5.64E-04	5.35E-04	4.10E-07
n-Butane		6.62E-06	2.14E+00	4.86E-05	7.33E+01	2.01E-06	9.45E-05	2.77E-03	2.68E-03	1.37E-06
Isopentane		1.62E-06	8.74E-01	1.37E-05	1.47E+01	4.92E-07	2.75E-05	1.90E-03	1.88E-03	3.36E-07
n-Pentane		2.34E-06	1.52E+00	1.99E-05	2.02E+01	7.11E-07	4.04E-05	3.79E-03	3.74E-03	4.86E-07
n-Hexane		1.53E-06	2.56E+00	1.25E-05	1.28E+01	4.64E-07	2.66E-05	9.15E-03	9.13E-03	3.17E-07
Heptane		1.66E-07	9.05E-01	1.45E-06	2.30E+00	5.04E-08	3.19E-06	3.64E-03	3.63E-03	3.44E-08
Octane		2.98E-08	5.55E-01	2.64E-07	8.70E-01	9.03E-09	5.99E-07	2.32E-03	2.32E-03	6.17E-09
Nonane		4.50E-10	2.96E-02	4.03E-09	3.51E-02	1.36E-10	9.50E-09	1.25E-04	1.25E-04	9.32E-11
Decane		2.99E-10	6.90E-02	2.94E-09	7.47E-02	9.06E-11	7.13E-09	2.93E-04	2.93E-04	6.19E-11
Undecane		2.84E-10	2.39E-01	2.83E-09	2.46E-01	8.61E-11	7.14E-09	1.01E-03	1.01E-03	5.88E-11
Benzene		5.86E-09	1.55E-02	7.83E-08	8.34E-02	1.78E-09	1.65E-07	5.82E-05	5.81E-05	1.21E-09
Toluene		5.00E-09	4.44E-02	7.04E-08	1.10E-01	1.52E-09	1.54E-07	1.81E-04	1.81E-04	1.04E-09
Ethylbenzene		2.09E-10	5.65E-03	2.78E-09	8.78E-03	6.35E-11	6.28E-09	2.37E-05	2.37E-05	4.34E-11
m-Xylene		1.81E-09	4.07E-02	1.84E-08	6.15E-02	5.48E-10	4.17E-08	1.71E-04	1.71E-04	3.74E-10
o-Xylene		1.46E-10	6.07E-03	2.33E-09	8.78E-03	4.44E-11	5.29E-09	2.55E-05	2.55E-05	3.03E-11
Water		8.00E-05	5.05E-03	4.72E-06	0.00E+00	2.43E-05	1.08E-05	3.86E+00	3.86E+00	1.66E-05
Mass Fraction		%	%	%	%	%	%	%	%	%
Nitrogen		1.18E-03	1.96E-02	1.77E-02	9.30E-01	1.18E-03	1.06E-02	4.21E-06	6.31E-07	1.18E-03
Oxygen		9.66E-04	3.22E-03	4.74E-03	8.15E-02	9.66E-04	3.09E-03	1.41E-06	3.71E-07	9.66E-04
Carbon Dioxide		1.67E-01	9.67E-03	6.14E-02	6.61E-02	1.67E-01	5.69E-02	1.15E-04	9.56E-05	1.67E-01
Methane		1.36E+00	3.47E+00	5.41E+00	5.53E+01	1.36E+00	3.65E+00	1.83E-03	6.01E-04	1.36E+00
Ethane		1.20E+01	6.73E+00	1.46E+01	2.16E+01	1.20E+01	1.25E+01	1.38E-02	9.56E-03	1.20E+01
Propane		1.29E+01	1.05E+01	2.27E+01	1.15E+01	1.29E+01	2.20E+01	6.03E-02	5.29E-02	1.29E+01
Isobutane		3.56E+00	3.56E+00	6.69E+00	1.76E+00	3.56E+00	6.90E+00	4.57E-02	4.34E-02	3.56E+00
n-Butane		1.19E+01	1.28E+01	2.16E+01	4.49E+00	1.19E+01	2.26E+01	2.25E-01	2.17E-01	1.19E+01
Isopentane		3.62E+00	6.51E+00	7.53E+00	1.12E+00	3.62E+00	8.18E+00	1.91E-01	1.89E-01	3.62E+00
n-Pentane		5.23E+00	1.13E+01	1.09E+01	1.53E+00	5.23E+00	1.20E+01	3.80E-01	3.76E-01	5.23E+00
n-Hexane		4.08E+00	2.28E+01	8.26E+00	1.16E+00	4.08E+00	9.46E+00	1.10E+00	1.10E+00	4.08E+00
Heptane		5.15E-01	9.35E+00	1.11E+00	2.42E-01	5.15E-01	1.32E+00	5.08E-01	5.07E-01	5.15E-01
Octane		1.05E-01	6.54E+00	2.30E-01	1.05E-01	1.05E-01	2.82E-01	3.69E-01	3.69E-01	1.05E-01
Nonane		1.78E-03	3.92E-01	3.95E-03	4.74E-03	1.78E-03	5.02E-03	2.24E-02	2.24E-02	1.78E-03
Decane		1.31E-03	1.01E+00	3.20E-03	1.12E-02	1.31E-03	4.18E-03	5.81E-02	5.81E-02	1.31E-03
Undecane		1.37E-03	3.85E+00	3.38E-03	4.05E-02	1.37E-03	4.60E-03	2.21E-01	2.21E-01	1.37E-03
Benzene		1.42E-02	1.25E-01	4.68E-02	6.86E-03	1.42E-02	5.31E-02	6.33E-03	6.32E-03	1.42E-02
Toluene		1.43E-02	4.22E-01	4.96E-02	1.07E-02	1.43E-02	5.84E-02	2.32E-02	2.32E-02	1.43E-02
Ethylbenzene		6.87E-04	6.20E-02	2.26E-03	9.82E-04	6.87E-04	2.75E-03	3.50E-03	3.51E-03	6.87E-04
m-Xylene		5.93E-03	4.46E-01	1.49E-02	6.87E-03	5.93E-03	1.82E-02	2.52E-02	2.52E-02	5.93E-03
o-Xylene		4.81E-04	6.65E-02	1.89E-03	9.82E-04	4.81E-04	2.32E-03	3.78E-03	3.78E-03	4.81E-04
Water		4.45E+01	9.40E-03	6.50E-01	0.00E+00	4.45E+01	8.01E-01	9.67E+01	9.68E+01	4.45E+01
Mass Flow		lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h
Nitrogen		3.80E-08	1.90E-01	2.31E-06	8.83E+02	1.15E-08	2.57E-06	3.02E-06	4.53E-07	7.88E-09
Oxygen		3.12E-08	3.12E-02	6.21E-07	7.74E+01	9.47E-09	7.48E-07	1.01E-06	2.66E-07	6.47E-09
Carbon Dioxide		5.41E-06	9.37E-02	8.03E-06	6.28E+01	1.64E-06	1.38E-05	8.24E-05	6.86E-05	1.12E-06
Methane		4.41E-05	3.37E+01	7.08E-04	5.25E+04	1.34E-05	8.86E-04	1.32E-03	4.32E-04	9.13E-06
Ethane		3.88E-04	6.52E+01	1.92E-03	2.05E+04	1.18E-04	3.04E-03	9.90E-03	6.86E-03	8.05E-05
Propane		4.17E-04	1.02E+02	2.98E-03	1.10E+04	1.26E-04	5.34E-03	4.33E-02	3.80E-02	8.63E-05
Isobutane		1.15E-04	3.45E+01	8.76E-04	1.67E+03	3.49E-05	1.67E-03	3.28E-02	3.11E-02	2.38E-05
n-Butane		3.84E-04	1.24E+02	2.82E-03	4.26E+03	1.17E-04	5.49E-03	1.61E-01	1.56E-01	7.96E-05
Isopentane		1.17E-04	6.30E+01	9.86E-04	1.06E+03	3.55E-05	1.98E-03	1.37E-01	1.35E-01	2.42E-05
n-Pentane		1.69E-04	1.09E+02	1.43E-03	1.46E+03	5.13E-05	2.92E-03	2.73E-01	2.70E-01	3.50E-05
n-Hexane		1.32E-04	2.21E+02	1.08E-03	1.10E+03	4.00E-05	2.30E-03	7.89E-01	7.86E-01	2.73E-05
Heptane		1.67E-05	9.06E+01	1.46E-04	2.30E+02	5.05E-06	3.20E-04	3.64E-01	3.64E-01	3.45E-06
Octane		3.40E-06	6.34E+01	3.02E-05	9.93E+01	1.03E-06	6.85E-05	2.65E-01	2.65E-01	7.05E-07
Nonane		5.77E-08	3.79E+00	5.17E-07	4.51E+00	1.75E-08	1.22E-06	1.61E-02	1.61E-02	1.20E-08
Decane		4.25E-08	9.82E+00	4.18E-07	1.06E+01	1.29E-08	1.01E-06	4.17E-02	4.17E-02	8.81E-09
Undecane		4.44E-08	3.73E+01	4.43E-07	3.84E+01	1.35E-08	1.12E-06	1.58E-01	1.58E-01	9.19E-09
Benzene		4.58E-07	1.21E+00	6.12E-06	6.52E+00	1.39E-07	1.29E-05	4.55E-03	4.53E-03	9.48E-08
Toluene		4.61E-07	4.09E+00	6.49E-06	1.01E+01	1.40E-07	1.42E-05	1.66E-02	1.66E-02	9.55E-08
Ethylbenzene		2.22E-08	6.00E-01	2.95E-07	9.33E-01	6.74E-09	6.67E-07	2.52E-03	2.52E-03	4.61E-09
m-Xylene		1.92E-07	4.32E+00	1.96E-06	6.53E+00	5.82E-08	4.42E-06	1.81E-02	1.81E-02	3.97E-08
o-Xylene		1.55E-08	6.44E-01	2.47E-07	9.33E-01	4.72E-09	5.62E-07	2.71E-03	2.71E-03	3.22E-09
Water		1.44E-03	9.10E-02	8.51E-05	0.00E+00	4.37E-04	1.94E-04	6.95E+01	6.95E+01	2.98E-04

Process Streams		Breathing Losse	ullet Condensa	lashing Losse	Inlet Gas	.oading Losse:	PW Gas	PW Inlet	PW Outlet	Vorking Losse:
Properties	**Status:**	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved
Phase: Total	**rom Bloc**	--	**MIX-102**	--	--	--	**VSSL-101**	**MIX-101**	**VSSL-101**	--
	To Block:	--	--	--	**MIX-100**	--	--	**VSSL-101**	--	--
Property	**Units**									
Temperature	°F	5.68E+01	2.63E+01	5.68E+01	7.00E+01	5.68E+01	6.54E+01	6.55E+01	6.54E+01	5.68E+01
Pressure	psia	3.42E-01	4.47E+01	1.41E+01	4.65E+02	3.42E-01	1.47E+01	1.97E+01	1.47E+01	3.42E-01
Mole Fraction Vapor	%	1.00E+02	3.08E+01	1.00E+02	9.97E+01	1.00E+02	1.00E+02	0.00E+00	0.00E+00	1.00E+02
Mole Fraction Light L	%	0.00E+00	6.92E+01	0.00E+00	3.28E-01	0.00E+00	0.00E+00	7.03E-01	6.91E-01	0.00E+00
Mole Fraction Heavy	%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.93E+01	9.93E+01	0.00E+00
Molecular Weight	lb/lbmol	2.71E+01	5.99E+01	4.48E+01	2.16E+01	2.71E+01	4.75E+01	1.85E+01	1.85E+01	2.71E+01
Mass Density	lb/ft^3	1.67E-03	1.66E+00	1.16E-01	2.03E+00	1.67E-03	1.26E-01	6.13E+01	6.13E+01	1.67E-03
Molar Flow	lbmol/h	1.20E-04	1.62E+01	2.92E-04	4.39E+03	3.62E-05	5.10E-04	3.88E+00	3.88E+00	2.48E-05
Mass Flow	lb/h	3.23E-03	9.69E+02	1.31E-02	9.50E+04	9.81E-04	2.43E-02	7.18E+01	7.18E+01	6.70E-04
Vapor Volumetric Flo	ft^3/h	1.94E+00	5.83E+02	1.13E-01	4.67E+04	5.87E-01	1.92E-01	1.17E+00	1.17E+00	4.01E-01
Liquid Volumetric Flo	gpm	2.41E-01	7.27E+01	1.40E-02	5.82E+03	7.32E-02	2.40E-02	1.46E-01	1.46E-01	5.00E-02
Std Vapor Volumetric	MMSCFD	1.09E-06	1.47E-01	2.66E-06	4.00E+01	3.30E-07	4.65E-06	3.54E-02	3.54E-02	2.25E-07
Std Liquid Volumetric	sgpm	1.01E-05	3.36E+00	5.17E-05	5.44E+02	3.06E-06	9.28E-05	1.46E-01	1.46E-01	2.09E-06
Compressibility		1.00E+00	3.09E-01	9.82E-01	8.70E-01	1.00E+00	9.80E-01	1.05E-03	7.84E-04	1.00E+00
Specific Gravity		9.34E-01		1.55E+00		9.34E-01	1.64E+00	9.83E-01	9.83E-01	9.34E-01
API Gravity								1.23E+01	1.23E+01	
Enthalpy	Btu/h	-1.02E+01	-1.05E+06	-1.41E+01	-1.53E+08	-3.09E+00	-2.55E+01	-4.77E+05	-4.77E+05	-2.11E+00
Net Ideal Gas Heatin	Btu/ft^3	7.84E+02	3.09E+03	2.33E+03	1.18E+03	7.84E+02	2.46E+03	3.07E+01	3.04E+01	7.84E+02
Net Liquid Heating V	Btu/lb	1.04E+04	1.94E+04	1.96E+04	2.06E+04	1.04E+04	1.95E+04	-4.00E+02	-4.07E+02	1.04E+04